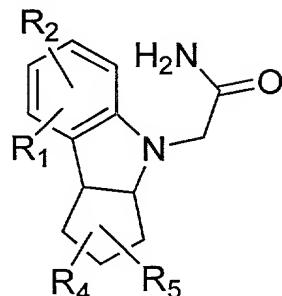


**What is Claimed:**

1. A compound of the formula:



5 wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

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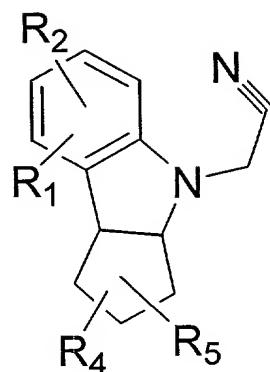
2. A compound of Claim 1 wherein R<sub>1</sub> and R<sub>2</sub> are hydrogen, and R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

15 3. A compound of Claim 1 wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> are hydrogen, and R<sub>5</sub> is as defined in Claim 1.

4. A compound of Claim 1 which is 2-(2,3,3a,8b-Tetrahydro-1H-cyclopenta[b]indol-4-yl)-acetamide.

20

5. A compound of the formula:



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1

5 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10 6. A compound of Claim 5 wherein R<sub>1</sub> and R<sub>2</sub> are hydrogen, and R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

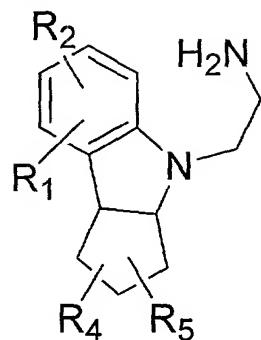
7. A compound of Claim 5 wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> are hydrogen, and R<sub>5</sub> is as defined in Claim 1.

15 8. A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)-acetonitrile.

20

25

9. A compound of the formula:



wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>4</sub> and R<sub>5</sub> are each, independently, hydrogen, hydroxy, alkyl of 1-6 carbon atoms, cycloalkyl, alkoxy of 1-6 carbon atoms, halogen, fluorinated alkyl of from 1

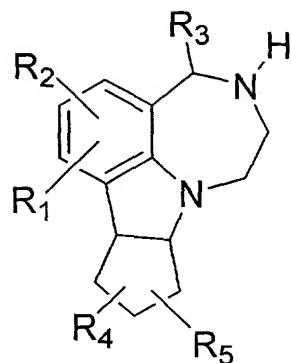
5 to 6 carbon atoms, -CN, -NH-SO<sub>2</sub>-alkyl of 1-6 carbon atoms, -SO<sub>2</sub>-NH-alkyl of 1-6 carbon atoms, alkyl amide of 1-6 carbon atoms, amino, alkylamino of 1-6 carbon atoms, dialkylamino of 1-6 carbon atoms per alkyl moiety, fluorinated alkoxy of 1-6 carbon atoms, acyl of 2-7 carbon atoms, aryl or aroyl.

10 10. A compound of Claim 5 wherein R<sub>1</sub> and R<sub>2</sub> are hydrogen, and R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

11. A compound of Claim 5 wherein R<sub>1</sub>, R<sub>2</sub> and R<sub>4</sub> are hydrogen, and R<sub>5</sub> is as defined in Claim 1.

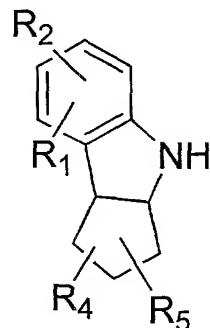
15 12. A compound of Claim 5 which is 2-(2,3,3a,8b-Tetrahydro-1*H*-cyclopenta[*b*]indol-4-yl)- ethylamine.

13. A process for synthesis of a compound of the formula:



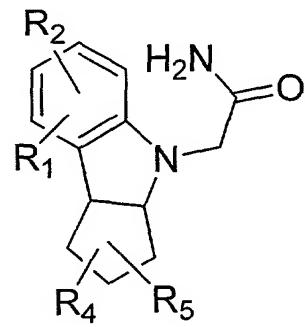
wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1, the process comprising the steps of:

a) converting a cyclopenta[b]indole compound of the formula:

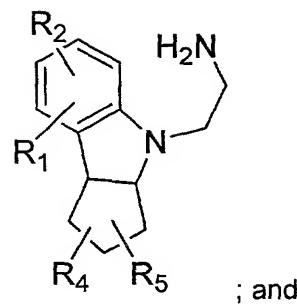


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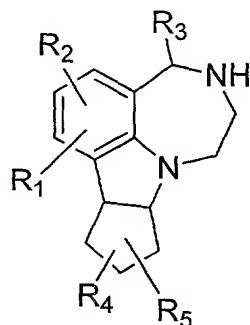
to an optionally substituted cyclopenta[b]indol-4-ylacetamide compound of the formula:



10 b) reducing the optionally substituted cyclopenta[b]indol-4-ylacetamide of step a) to the corresponding optionally substituted cyclopenta[b]indol-4-yl-amine of the formula:

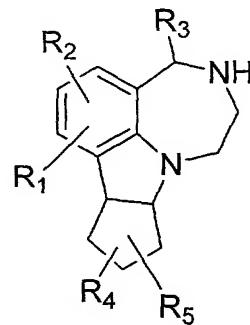


c) cyclizing the cyclopenta[b]indol-4-yl-amine of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

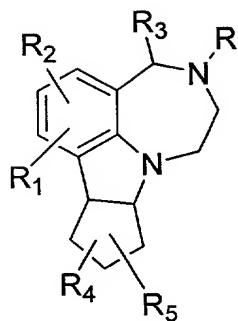


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14. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

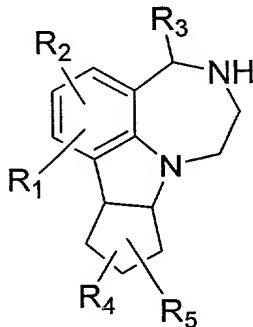


10 with an alkylating agent to produce a compound of the formula:

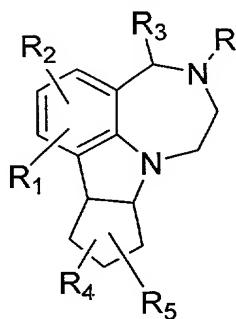


wherein R is alkyl of from 1 to 6 carbon atoms and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

5 15. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

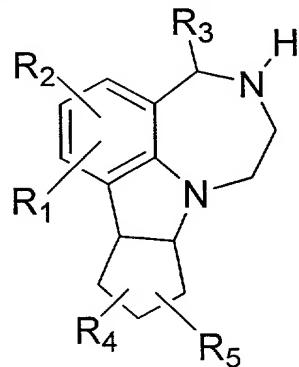


with an acylating agent to produce a compound of the formula:



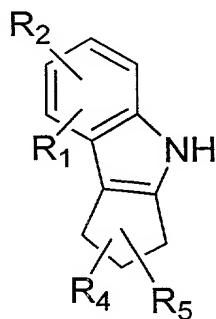
10 wherein R is  $-C(O)R'$ ; R' is alkyl of from 1 to 6 carbon atoms or aryl; and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.

16. A process for preparing a compound of the formula:

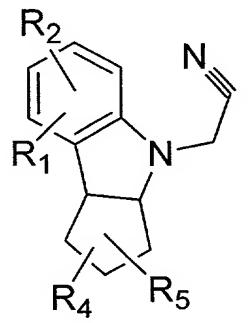


wherein R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1, the process comprising the steps of:

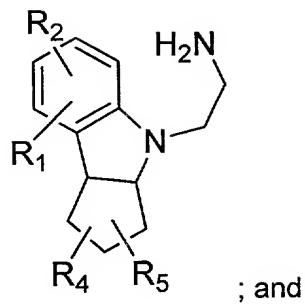
5           a)     converting an optionally substituted cyclopenta[b]indole compound of the formula:



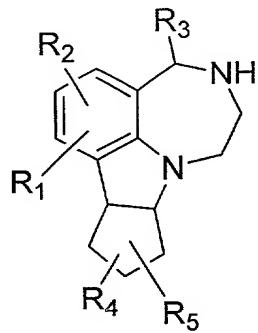
to an optionally substituted nitrile compound of the formula:



10           b)     reducing the optionally substituted nitrile compound of step a) to provide an optionally substituted amine compound of the formula:

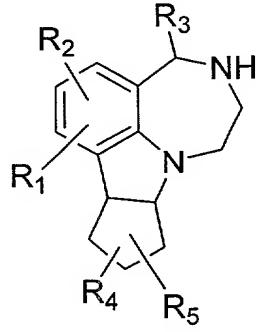


c) cyclizing the amine compound of step b) to an optionally substituted diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

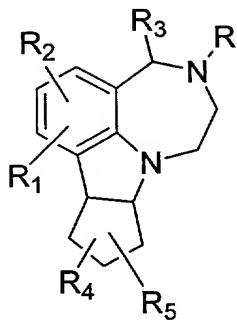


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14. The process of Claim 13 further comprising the step of treating the diaza-benzo[cd]cyclopenta[a]azulene compound of the formula:

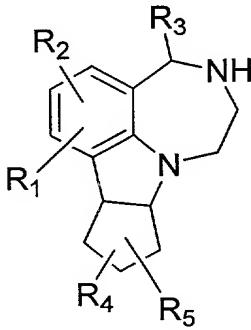


with an alkylating agent to produce a compound of the formula:

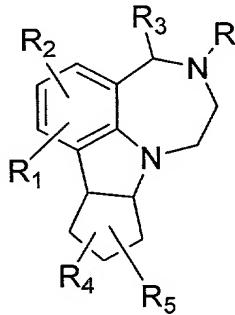


wherein R is alkyl of from 1 to 6 carbon atoms and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in  
Claim 1.

5 15. The process of Claim 13 further comprising the step of treating the diaza-  
benzo[cd]cyclopenta[a]azulene compound of the formula:



with an acylating agent to produce a compound of the formula:



10 wherein R is -C(O)R'; R' is alkyl of from 1 to 6 carbon atoms or aryl;  
and R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub> and R<sub>5</sub> are as defined in Claim 1.